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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/617,920	07/17/2000	Masayuki Takahira	Q58735	8339

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SUGHRUE, MION, ZINN, MACPEAK & SEAS  
2100 Pennsylvania Avenue, N.W.  
Washington, DC 20037

EXAMINER
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WU, JINGGE

ART UNIT	PAPER NUMBER
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2623

DATE MAILED: 07/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/617,920	<b>Applicant(s)</b> TAKAHIRA, MASAYUKI	
	<b>Examiner</b> Jingge Wu	<b>Art Unit</b> 2623	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 25 April 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-18 and 27-47 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) 1-15, 34 and 43 is/are allowed.
- 6) ☐ Claim(s) 16-18, 30-33, 35, 36 and 46 is/are rejected.
- 7) ☐ Claim(s) 27-29, 37-43, 45, 47 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

***Response to Amendment***

Applicants' response to the last Office Action, filed on April 25, 2005 has been entered and made of record.

***Remarks***

Applicant's arguments with respect to claims 16-18, and 27-33, 35-36 have been fully considered, but they are not persuasive.

a. Applicant argues that in claim 16, Ito does not appear to disclose correcting an edge shape before the color reproducing space is compressed or extended. The mapping shown by Figs. 15-16 corresponding in conjunction with mapping between color spaces and thus does not illustrate before compression. In addition, no edge shape correction of printer (second device) is corrected.

However, in response to applicant's argument, Examiner would like to point out that claim language is given its broadest reasonable interpretation. In the instant case, Ito clearly show that a edge shape of monitor gamut is corrected (compressed) to the color gamut of printer. The compressed action occurs after the transformation of the two device dependent spaces, thus, user can see the difference (see Fig. 15 and 16). Therefore, no alleged "in conjunction" compression occurs. In addition, the Examiner now designates the second input/output device is monitor. Fig. 15-16 clearly show the edge shape of the monitor gamut to change/correct to the edge shape of the printer gamut.

b. Applicant argues that in claims 18, 35-36, Ito does not teach the adjusting a parameter of the reproducing space followed by compression or extension.

Same argument is addressed with regard to section a.

c. Applicant argues that in claim 17, Hosino does not appear to disclose correcting an edge shape before the color reproducing space is compressed or extended.

However, in response to applicant's argument, Examiner would like to point out that claim language is given its broadest reasonable interpretation. In the instant case, Hosino clearly show that a edge shape of monitor gamut is corrected in the  $L^*u^*v^*$  space by the gamut matching (fig. 3a-3c, 11-19, col. 4 line 11-col. 5 line 60, col. 6 line 54-col. 8, col. 12 line 34-col. 13) after the color is transformed to the color space, and then corrected color transformed into the reproducing color space (col. 12 line 34-col. 13, note that gamut matching is used to correct the edge shape of monitor gamut and  $L^*u^*v^*$  to YMC transformation is the "compressed or extended", e.g. interpolation). In addition, Hosino also teaches that Thus, Hosino is also properly used for the 102 rejection.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in-

(1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or

(2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United

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States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16, 18, 35-36 and 46 are rejected under 35 U.S.C. 102(e) as being anticipated by US 6301383 to Ito et al. (a reference of record).

As to claim 16, Ito discloses a method of compressing/extending a color reproducing space, comprising:

before (see Remark a) the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device (printer) is transformed into the color reproducing space of a second image input/output device (monitor) having a different shape or size of the color reproducing space (fig. 13-16, col. 2 lines 5-42); and

correcting an edge shape a color gamut of said second image input/output device (monitor) in according with an edge shape of a color gamut of said first image input/output device (printer) (fig. 13-16, col. 1-col. 2, fig. 4, 6, and 10 col. 6 –col. 8).

As to claim 18, Ito discloses a method of compressing/extending a color reproducing space, comprising:

when the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device (monitor) is transformed into the color reproducing space of a second image input/output device (printer) having a different shape or size of the color reproducing space (fig. 13-16, col. 2 lines 5-42);

providing an adjusting parameter of at least one of a hue, a chroma range and a lightness region for the purpose of adjusting the color reproducing space (col. 6 lines 1-65); and

adjusting at least one of corresponding a hue, the chroma range and the lightness region of the color reproducing space to transform into by compression or extension (fig. 6-7, col. 5 line 34-col. 7, line 29 and figs. 15-16, col. 2 lines 23-42).

As to claims 35-36, Ito further discloses the edge shape of a color gamut of the second image input/output device is corrected to correct offset of primary colors in relation to the primary colors of the first image input/output device (fig. 7, col. 2 line 44-col. 3 line 36 and col. 5 line 51-col. 6 line 65).

As to claim 46, Ito further discloses adjusting chroma range comprises compressing or extending chroma of a color gamut of the first input device (monitor) within the same hue plane in the uniform color space ( $L^*a^*b^*$ ) (figs. 15-16, col. 2 lines 5-42).

Claims 17, 31, and 33 are rejected under 35 U.S.C. 102(b) as being anticipated by Us 5317426 to Hoshino (a reference of record).

As to claim 17, Hoshino discloses a method of compressing/extending a color reproducing space comprising:

before (see remark) the color reproducing space is compressed or extended such that the color reproducing space of a first image input/output device (printer) is transformed into the color reproducing space of a second image input/output device (monitor) having a different shape or size of the color reproducing space (fig. 14); and

correcting a non-linear portion of an edge shape of a color gamut of said second image input/output device (monitor) in according with an edge shape of a color gamut of

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said first image input/output device (printer) (fig. 13-19, col. 14, line 35-col. 15 line 61 note that  $L^* = b_x r + c$  is linear function).

As to claims 31, Hoshino further discloses each color representation of a color reproducing space is compressed or extended (fig. 15 and 27, col. 14 line 35+, and col. 2).

As to claim 33, Hoshino further discloses the correction is performed on the highest chroma pint ( $r_{Inmax}$ ) so that the highest chroma point is clearly defined (fig. 14, col. 14, 5+).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 30, 32 are rejected under 35 U.S.C. 103(a) as being unpatentable Ito ib view of Hoshino.

As to claims 30 and 32, the discussion is addressed with regard to claim 31.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to use the scheme of Hoshino in the method of Ito in order to decrease the artifacts such as changed lightness (Hoshino col. 2).

***Allowable Subject Matter***

Claims 27-29, 37-40, 45 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 41-43 depend from claims 40, therefore, are objected.

Claim 1 is allowed. Claims 2-15 depend from claim 1 are, therefore, allowed.

Claims 34 and 43 are allowed.

***Contact Information***

Any inquiry concerning this communication or earlier communications should be directed to Jingge Wu whose telephone number is (703) 308-9588. He can normally be reached Monday through Thursday from 8:00 am to 5:30 pm. The examiner can be also reached on second alternate Fridays.

Any inquiry of a general nature or relating to the status of this application should be directed to TC customer service whose telephone number is (703) 306-0377.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Amelia Au, can be reached at (703) 308-6604.

The Working Group Fax number is (703) 872-9314.

Jingge Wu

Primary Patent Examiner

